

FILE 'BIOSIS, MEDLINE, EMBASE, EMBAL, BIOTECHDS, SCISEARCH'
ENTERED AT 12:33:26 ON 05 FEB 2004

L1 49690 S (QUANTITATIVE OR (REAL (1W) TIME) OR (REALTIME)) (S)
(PCR OR
L2 7 S L1 AND (PWO (1W) POLYMERASE?)
L3 3 DUP REM L2 (4 DUPLICATES REMOVED)
L4 6 S BHQ1 OR (ECLIPSE (5W) QUENCHER?)
L5 3 DUP REM L4 (3 DUPLICATES REMOVED)
L6 1417 S BHQ1? OR EDQ OR (S (1W) OLIGO?)
L7 2 S L6 AND (TET OR JOE)
L8 2 DUP REM L7 (0 DUPLICATES REMOVED)
L9 2 S L6 AND (DARK (2S) QUENCHER)
L10 2 S L6 AND (DARK (2W) QUENCHER)
L11 1 S L10 NOT L8
L12 27 S DARK (2W) QUENCHER?
L13 14 DUP REM L12 (13 DUPLICATES REMOVED)
L14 13 S L13 NOT L11
L15 9 S L14 AND (AMPLIF? OR PCR)
L16 1 S L15 AND (EDQ? OR BHQ1 OR (ECLIPSE (4W) QUENCHER?))
L17 123 S (ECLIPSE (3W) QUENCHER?) OR (EDQ? OR BHQ1?)
L18 2 S L17 AND (AMPLIF? OR PCR)
L19 2 DUP REM L18 (0 DUPLICATES REMOVED)
L20 7 S L17 AND (LABEL?)
L21 5 S L20 NOT L19
L22 2 DUP REM L21 (3 DUPLICATES REMOVED)
L23 85 S L17 AND PY<2002
L24 64 DUP REM L23 (21 DUPLICATES REMOVED)
L25 0 S L24 AND (PROBE?)
L26 6 S BHQ1
L27 3 DUP REM L26 (3 DUPLICATES REMOVED)

(FILE 'HOME' ENTERED AT 13:52:37 ON 05 FEB 2004)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR,
AQUASCI,
BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS,
BIOTECHNO, CABA,
CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU,
DISSABS,
DDFB, DDFU, DGENE, DRUGB, DRUGMONOG2, ...' ENTERED AT 13:53:07 ON
05 FEB
2004
SEA.BHQ1 AND (PWO (2W) POLYMERASE?)

L1 2 FILE USPATFULL
 QUE BHQ1 AND (PWO (2W) POLYMERASE?)

 SEA BHQ1 AND (PROOFREADING OR (PROOF (1W) READING))

 L2 2 FILE USPATFULL
 QUE BHQ1 AND (PROOFREADING OR (PROOF (1W) READING))

ANSWER 2 OF 3 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

ACCESSION NUMBER: 2003-13146 BIOTECHDS

TITLE: Detecting the presence of a human papillomavirus subtype,
 using multiple fluorophores, in a nucleic acid-containing
 sample, useful in PCR-based assays for identifying HPV
 subtypes;
 the use of DNA polymerase chain reaction in virus
 detection

AUTHOR: JANSEN K U; TADDEO F J; LI W; DICELLO A C

PATENT ASSIGNEE: MERCK and CO INC

PATENT INFO: WO 2003019143 6 Mar 2003

APPLICATION INFO: WO 2002-US26964 19 Aug 2002

PRIORITY INFO: US 2001-314383 23 Aug 2001; US 2001-314383 23 Aug 2001

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2003-312914 [30]

AB. . . a reverse discriminatory PCR primer of 21 bp, and a probe with 29
 bp, where the probes are labeled with BHQ1 on the 3' end and a
 fluorophore, preferably FAM, JOE and TET, on the 5' end, allowing
 digestion of each. . . a reverse discriminatory PCR primer of 22 bp,
 and a probe with 26 bp, where the probes are labeled with BHQ1
 on the 3' end and a fluorophore, preferably FAM, JOE and TET, on the 5'
 end, allowing digestion of each. . . a reverse discriminatory PCR
 primer of 22 bp, and a probe with 27 bp, where the probes are labeled
 with BHQ1 on the 3' end and a fluorophore, preferably FAM, JOE
 and TET, on the 5' end, allowing digestion of each. . . a reverse
 discriminatory PCR primer of 20 bp, and a probe with 33 bp, where the
 probes are labeled with BHQ1 on the 3' end and a fluorophore,
 preferably FAM, JOE and TET, on the 5' end, allowing digestion of each.
 . . E6, E7 and L1 genes. The quencher is non-fluorescent. The
 fluorophores are FAM, JOE and TET and the quencher is BHQ1. The
 HPV subtype is HPV6, HPV11, HPV16 and HPV18. The fluorophore of the first
 oligonucleotide set in the method of. . . nucleotide of the sequence
 of nucleotides. The fluorophore is FAM, JOE and TET. The quencher
 molecule is non-fluorescent or is BHQ1.

USE - The methods and compositions of the present invention are useful in PCR-based assays for detecting HPV subtypes. . .

ANSWER 3 OF 3 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 1

ACCESSION NUMBER: 2002:401843 BIOSIS

DOCUMENT NUMBER: PREV200200401843

TITLE: Intramolecular dimers: A new strategy to fluorescence quenching in dual-labeled oligonucleotide probes.

AUTHOR(S): Johansson, Mary Katherine [Reprint author]; Fidler, Henk; Dick, Daren; Cook, Ronald M.

CORPORATE SOURCE: Biosearch Technologies, 81 Digital Drive, Novato, CA, 94949, USA
marykat@biosearchtech.com

SOURCE: Journal of the American Chemical Society, (June 19, 2002)
Vol. 124, No. 24, pp. 6950-6956. print.
CODEN: JACSAT. ISSN: 0002-7863.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 24 Jul 2002

Last Updated on STN: 24 Jul 2002

AB. . . We have studied two dual-labeled probes with two different fluorophores, the same sequence and quencher, and with no stem structure: 5'Cy3.5-beta-actin-3'BHQ1 and 5'FAM-beta-actin-3'BHQ1. Analysis of their absorption spectra, relative fluorescence quantum yields, and fluorescence lifetimes shows that static quenching occurs in both of these dual-labeled probes and that it is the dominant quenching mechanism in the Cy3.5-BHQ1 probe. Absorption spectra are consistent with the formation of an excitonic dimer, an intramolecular heterodimer between the Cy3.5 fluorophore and the BHQ1 quencher.

IT Major Concepts

Methods and Techniques; Molecular Genetics (Biochemistry and Molecular Biophysics)

IT Chemicals & Biochemicals

BHQ1: dark quencher; Cy3.5: fluorophore; FAM: fluorophore;
beta-actin: dual labeled, molecular probe; beta-actin DNA;
oligonucleotide: dual-labeled, molecular probe